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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,732	04/03/2002	Tino Kirschner	ZAHFRI P437US	2713

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DAVIS & BUJOLD, P.L.L.C.
FOURTH FLOOR
500 N. COMMERCIAL STREET
MANCHESTER, NH 03101-1151

EXAMINER

HO, HA DINH

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,732

Applicant(s)

KIRSCHNER, TINO

Examiner

Ha D. Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2003 and 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 14-17, 19, 20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12, 14-17, 19, 20 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Exhibit 3.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's amendment filed on 12/02/03 has been entered.

2. This Office Action is responsive to Applicant's Amendment filed on 12/02/03. Claims 12, 14-15, 19 and 22 have been amended, and claim 18 has been canceled accordingly. Claims 12, 14-17, 19-20 and 22 are currently pending.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 14, 15 and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 14 recites the limitation "the bearing (28)" in line 2, and claim 15 recites the limitation "the bearing (28)" in line 2. There is insufficient antecedent basis for this limitation in the claims. It is suggested to change "the" to a.

- Claim 19 recites the limitation "the axial compensating element" in line 16, "the outer bearing ring" in lines 16-17, and "the circlip" in line 17. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 12, 14 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Peter (DE 19808184).

Regarding claim 12, Peter' 184 teaches a planetary gear having planetary wheels (46) fitted in a rotating planetary carrier (47) that forms an output (48), a sun gear (44), an annular gear (45), a housing (40), a rotating sun gear shaft (21) having a hollow receiving section (i.e., A which is colored in red, see Exhibit 3) to directly receive an output shaft (11) of an electromotor (10), a sealing element (42) provided between the sun gear shaft (21) and the housing (40), wherein the sealing element (42) is axially spaced from the receiving section (A) for the output shaft (11) of the electromotor (10), and located on a first axial section of the sun gear shaft (i.e., the section B colored in green) having a smaller outer diameter (D1) than a diameter (D2) of the receiving area (A).

Regarding claim 14, the outer ring of the bearing (43) is positioned in the planetary carrier (47).

Regarding claim 22, wherein a diameter (D3) of a functional surface (i.e., the surface C of the section colored in yellow) of the sun gear shaft (21) associated with the sealing element (42) is smaller than the diameter (D4) of a bore (see Exhibit 3).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 12, 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedrich (DE 4241550) in view of Peter (DE 19808184).

Regarding claims 12 and 22, Friedrich'550 teaches a planetary gear having planetary wheels (4) fitted in a rotating planetary carrier that forms an output (5), a sun gear (A) (see Exhibit 1 attached in the Office Action mailed 10/03/03), an annular gear (2a), a housing (2), a rotating sun gear shaft (B including sections colored in yellow, green and red, see Exhibit 1 attached in the Office Action mailed 10/03/03) having a hollow receiving section (C which is colored in red) to receive an output shaft (26) of an electromotor, a sealing element (16) provided between the sun gear shaft (B) and the housing, wherein the sealing element (16) is axially spaced from the receiving area (C) and located on a first axial section of the sun gear shaft (i.e., the section colored in green) having a smaller outer diameter than a diameter of the receiving area (C).

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Friedrich'550 shows the hollow receiving section (C) receiving the output shaft (26) via a shaft receiver (13), not directly.

Peter'184 shows a planetary gear as set forth in the paragraph 6 above, wherein the hollow receiving section directly receives the output shaft.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the planetary gear of Friedrich'550 such that the hollow receiving section directly receives the output shaft in view of Peter'184 in order to reduce parts in the device (i.e., without the need of a shaft receiver) so the assembly time would be reduced.

Note that, in view of the Peter'184 reference, the modified planetary gear would have the receiving section (i.e., red section) be thicker in radially thickness such that the bore diameter of the red section is equal to the bore diameter of the green section.

Regarding claim 14, Friedrich'550 shows the outer ring of the bearing (D) being positioned in the planetary carrier.

Regarding claim 22, the modified planetary gear would have a diameter of a functional surface (i.e., the surface on the left of the green section, see Exhibit 1 attached in the Office Action mailed 10/03/03) of the sun gear shaft (B) is smaller than the diameter of the bore in the modified receiving area.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peter (DE 19808184) in view of Fritsch (US 3,315,547).

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Peter' 184 shows the bearing (43) for the sun gear shaft located radially and axially outside, not radially inside and axially at least partly within, the space occupied by a planetary carrier bearing (49').

Fritsch' 547 shows a planetary gear (see Fig. 1) having a bearing (G) (see Exhibit 2 attached in the Office Action mailed 10/03/03) for the sun gear shaft (11) located radially inside and axially at least partly within the space occupied by an inner ring of a planetary carrier bearing (H).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to relocate the bearing for the sun gear shaft of Peter' 184 such that it is located radially inside and axially at least partly within the inner ring of the planetary carrier bearing as shown by Fritsch' 547, since shifting the bearing for the sun gear shaft to a different position would not modify the operation of the device. The courts have held that shifting location of parts would have been an obvious expedient (*In re Japikse*, 86 USPQ 70 (CCPA 1950)).

10. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedrich (DE 4241550) in view of Peter (DE 19808184) as applied to claim 12 above, and further in view of Fritsch (US 3,315,547).

Friedrich' 550 shows the bearing (D) for the sun gear shaft located radially and axially outside, not radially inside and axially at least partly within, the space occupied by a planetary carrier bearing (E) (see Exhibit 1 attached in the Office Action mailed 10/03/03).

Fritsch' 547 shows a planetary gear (see Fig. 1) having a bearing (G) (see Exhibit 2 attached in the Office Action mailed 10/03/03) for the sun gear shaft (11) located radially inside

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and axially at least partly within the space occupied by an inner ring of a planetary carrier bearing (H).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to relocate the bearing for the sun gear shaft of Friedrich'550 such that it is located radially inside and axially at least partly within the inner ring of the planetary carrier bearing as shown by Fritsch'547, since shifting the bearing for the sun gear shaft to a different position would not modify the operation of the device. The courts have held that shifting location of parts would have been an obvious expedient (*In re Japikse*, 86 USPQ 70 (CCPA 1950)).

Regarding claim 16, Friedrich'550 shows the carrier having through bores (I) (see Exhibit 1), a planetary bearing pin (6), and an end face of the planetary bearing pin (6) being axially limited between opposing inner bearing rings of planetary carrier bearings (E, 14), whereby the planetary bearing pin is secured against axial displacement.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friedrich (DE 4241550) in view of Peter (DE 19808184) as applied to claims 12 and 14 above, and further in view of Bayer (DE 19821813).

Friedrich'550 shows the bearing (D) for the sun gear shaft fitting into the carrier without a circlip received in a groove.

Bayer'813 shows a planetary gear having the bearing (4) and the circlip received in the groove (see Fig. 1). The circlip is for keeping the bearing from axially movement.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a groove on the carrier of Friedrich'550 and provide a circlip received in the groove in view of Bayer'813 in order to keep the bearing from axially movement.

Allowable Subject Matter

12. Claims 19 and 20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

13. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose or render obvious a motivation to provide for a planetary gear including the axial compensating element positioned in a particular position as required by claim 19.

Response to Arguments

14. Applicant's arguments with respect to claim 12 have been considered but are moot in view of the new ground(s) of rejection.

Communication

15. Submission of your response by facsimile transmission is encouraged. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see M.P.E.P. 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging

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such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check. Responses submitted by facsimile transmission should include a Certificate of Transmission (M.P.E.P.. 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to
the Patent and Trademark Office on _____

(Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and M.P.E.P.. 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Examiner Ho whose telephone number is (703) 305-0738. The examiner can normally be reached on Monday-Friday from 7:30 A.M. to 5:00 P.M. Eastern Standard Time. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Mr. Charles Marmor, can be reached at (703) 308-0830. Any inquiry of a general nature or relating to the status of this application or proceeding should directed to the Group receptionist whose telephone number is (703) 308-2168.

Ha Ho 3/12/04

Ha Ho
Primary Examiner
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